Safe Drinking Water Act

MILESTONES – HISTORICAL CHRONOLOGY

Circa 400 B.C.: Hippocrates emphasizes the importance of water quality to health and recommends boiling and straining water.

Circa 200 B.C.: A Sanskrit manuscript observes that "It is good to keep water in copper vessels, to expose it to sunlight, and filter it through charcoal."

1774 A.D.: Chlorine is discovered in Sweden.

1804: The first municipal water filtration works opens in Paisley, Scotland.

1835: Chlorine is first applied to drinking water to control foul odors in the water.

1849: The cholera epidemics of 1849 claim 8,000 lives in New York City and 5,000 in New Orleans.

1854: Dr. John Snow discovers that victims of a cholera outbreak in London have all used water from the same contaminated well on Broad Street.

1875: Slow sand filtration introduced in the United States in Massachusetts following the lead of European investigators combating cholera and typhoid in London, England.

1877 -1882: Germ theory. Louis Pasteur develops the theory that disease is spread by germs.

1882: Filtration of London drinking water begins.

1890s: Chlorine is proven an effective disinfectant of drinking water.

1890s: Microbiologist Robert Koch attributes the low incidence of cholera in Altona, Germany, located downstream on the Elbe River from cholera-infested Hamburg, to water supply filtration practices in Altona.

1896: The Louisville Water Company innovates a new treatment technique by combining coagulation with rapid-sand filtration of Ohio River water. This treatment technique eliminates turbidity and removes 99% of the bacteria from the water.

1902: Belgium implements the first continuous use of chlorine to make drinking water biologically "safe".

1908: Chlorination introduced in U.S. A public water supply is chlorinated for the first time at Boonton reservoir supply, Jersey City, NJ. This inexpensive treatment method produces water that is 20 times purer than filtered water. Contested in the courts, a city's right to chlorinate its water supply was upheld as a safeguard to public health. This action paved the way for chlorination throughout America's drinking water supplies.

1912: Congress passes the Public Health Service Act which authorizes surveys and studies for water pollution -- particularly as it affects human health. First water-related regulation adopted prohibiting the use of the "common-cup" on carriers of interstate commerce, i.e. trains, ships, etc.

1914: The first standards under the Public Health Service Act become law. These introduce the concept of maximum contaminant limits for drinking water. The standards, however, apply only to water supplies serving interstate transportation because they are intended to protect the traveling public. Many state and local governments adopted the 1914 standards as guidelines. Revised in 1925, 1942 and 1946.

1955: An infectious hepatitis epidemic in New Delhi, India is traced to inadequately chlorinated water at one of the city's two treatment plants. An estimated 1 million people are infected.

1962: U.S. Public Health Service Drinking Water Standards Revision is accepted as minimum standards for all public water suppliers. The 1914 standards revised to regulate 28 substances/contaminants. All 50 states accept the standards as either guidelines or regulations.

1965: Became apparent that aesthetic problems, pathogens and chemicals identified by PHS were not the only drinking water concerns. New manmade chemicals were imposing a negative effect on public health and drinking water. Chlorine, itself, was speculated by some scientists as creating it's own problems. This spurred the federal government to conduct several studies on drinking water. Due to immunization, reported cases of polio in the U.S. decreased from 20,000 in 1955 to 100.

1969: U.S. Public Health Service Community Water Supply study reveals major deficiencies in the nation's public water supplies.

1972: The Clean Water Act, a major amendment to the Federal Water Pollution Control Act, contains comprehensive provisions for restoring and maintaining all bodies of surface water in the U.S. Studies from 1965 revealed 36 chemicals detected in treated water from the Mississippi River in Louisiana.

1973: Chemical contamination and public health gained the attention of Congress. Led to the passage of the 1974 Safe Drinking Water Act, which gave US EPA oversight and control. EPA allowed states to take primacy over regulations should they so desire.

1974: The Safe Drinking Water Act is passed. Greatly expanding the scope of federal responsibility for safety of state drinking water. Earlier acts had confined federal authority to water suppliers serving interstate carriers. The 1974 Act extends U.S. standards to all community water systems with 15 or more outlets, or 25 or more customers.

1977: The Safe Drinking Water Act is amended to include radionuclides and extended authorization for technical assistance, information, training, and grants to the states.

1986: The Safe Drinking Water Act is further amended to include trihalomethanes; to set mandatory deadlines for the regulation of key contaminants; to require monitoring of unregulated contaminants; to establish benchmarks for treatment technologies; to bolster enforcement powers; and provide major new authorities to promote protection of ground water resources.

1988: National Drinking Water Week established by President Ronald Reagan

1996: The President Bill Clinton signs the Safe Drinking Water Act Reauthorization requiring states to implement or establish:

- a revolving loan fund (SRF) to provide money to communities to improve their drinking water facilities;
- source water protection - identify areas that may contribute pollution to sources of drinking water and assess potential pollution threats in these areas;
- capacity development - obtain the authority to prohibit the establishment of new drinking water systems that do not have the capacity (technical, financial, and managerial) to meet health-based standards, and establish capacity development strategies for existing systems and;
- assist public water systems in developing an annual "consumer confidence report" providing customers with information about their water sources, the contaminants in their water, and the health effects of these contaminants.